



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,025	10/20/2000	Bruce E. Randall	99P7935US01 (1505-0093)	8049

7590 03/29/2005

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

CHERRY, STEPHEN J

ART UNIT PAPER NUMBER

2863

DATE MAILED: 03/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary	Application No.	Applicant(s)	
	09/693,025	RANDALL, BRUCE E.	
	Examiner	Art Unit	
	Stephen J. Cherry	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 41-60 is/are allowed.
- 6) ☒ Claim(s) 37-39 is/are rejected.
- 7) ☒ Claim(s) 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,619,142 to Schweer et al in view of Horowitz and Hill, "The Art of Electronics, pages 636-638.

The claims recite, as disclosed by Schweer:

an analog-to-digital conversion circuit (142, ref. 62),

b) a memory storing data representative of at least one error rating for the external transformer ('142, 80); c) a processing circuit operably coupled to the source of digital measurement signals to receive digital measurement signals therefrom ('142, fig. 8, 70 and 72 coupled to 62); the processing circuit operable to obtain at least one electricity consumption measurement value ('142, col. 6, line 32, power consumed) corresponding to at least a part of the digital measurement signals value ('142, col. 6, line 32, power consumed), and adjust the at least one electricity consumption measurement value using at least a portion of the stored data ('142, col. 6, line 62)

wherein the at least one electricity consumption measurement value comprises a calculated energy consumption value ('142, col. 6, line 32, power consumed)

Art Unit: 2863

wherein the at least one electricity consumption measurement value comprises at least one of a sampled current value or a sampled voltage value ('142, col. 7, line 57).

However, Schweer does not teach an internal sensor circuit configured to convert power line signals received from the external transformer to measurement signals.

Horowitz and Hill disclose an internal sensor circuit configured to convert power line signals received from the external transformer to measurement signals (Horowitz and Hill, fig. 9.64, amplifier connected to terminal 28 of HI-506)

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the sensor circuit of Horowitz and Hill with the invention of Schweer to allow offset trim for improved accuracy (Horowitz and Hill, page 638).

Response to Arguments

Applicant's arguments with respect to claims 37 to 39 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see amendment, filed 12-30-2004, with respect to claims 41-60 have been fully considered and are persuasive. The 35 U.S.C. 102 rejections of claims 41-60 has been withdrawn, as further described below.

Allowable Subject Matter

Art Unit: 2863

Claim 40 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Claim 40 recites "wherein the processing circuit is further operable to adjust the at least one electricity consumption measurement value using an internal calibration value, the internal calibration value corresponding to at least one error associated with the internal sensor circuit". This feature in combination with the remaining claimed structure avoids the prior art of record.

Claims 41-60 are allowed.

The following is an examiner's statement of reasons for allowance:

Independent claim 41 recites "a processing circuit operable to obtain at least one electricity consumption measurement value, the electricity consumption measurement value representative of a waveform sample, the waveform sample derived from a current waveform or a voltage waveform,". This feature in combination with the remaining claimed structure avoids the prior art of record.

Independent claim 55 recites "obtain at least one electricity consumption measurement value, the at least one electricity consumption measurement value comprising either a sampled current value or a sampled voltage value, and adjust the at least one electricity consumption measurement value using at least a portion of the

Art Unit: 2863

stored data". This feature in combination with the remaining claimed structure avoids the prior art of record.

Although Schweer teaches adjusting electricity consumption values, it is not explicitly stated that a waveform sample value is adjusted as opposed to adjusting the RMS value derived from a plurality of samples.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2863


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Cherry whose telephone number is (571) 272-2272. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJC


John Barlow
Supervisory Patent Examiner
Technology Center 2800